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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/777,603	02/06/2001	Robert G. Roodman	3576-010027	3170

7590 02/07/2005

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EXAMINER	
CINTINS, IVARS C	
ART UNIT	**PAPER NUMBER**
1724	

DATE MAILED: 02/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/777,603	ROODMAN ET AL.	
	Examiner	Art Unit	
	Ivars C. Cintins	1724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 November 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *36-53* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *36-53* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 36, 37, 41-46 and 50-53 are again rejected under 35 U.S.C. 102(b) as being anticipated by Harte et al. (U.S. Patent No. 4,789,475). The reference discloses removing impurities (i.e. heavy metals) from water by passing this water through a bed of activated charcoal (col. 3, line 3) having a carboxylic acid containing compound (i.e. EDTA or DMS) adsorbed thereon (see col. 3, lines 62, 63 and 65), in the recited amount (see col. 4, lines 48-49), and prepared by soaking the activated charcoal in a solution of the carboxylic acid containing compound (see col. 4, line 63) and drying the resultant composition prior to its use (see col. 5, line 1). Furthermore, this reference material will also produce a pH change of less than 1 pH unit for at least 1.25 bed volumes of water treated with bituminous coal based activated carbon, and for at least 3.75 bed volumes of water treated with coconut shell based activated carbon, as evidenced by the Roodman declaration filed November 12, 2004.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 38 and 47 are again rejected under 35 U.S.C. 103(a) as being unpatentable over Harte et al. in view of Brioni et al. (U.S. Patent No. 5,437,845). Harte et al. discloses the claimed invention with the exception of the recited source of the activated carbon. Brioni et al.

teaches that it is known to produce activated charcoal from the materials recited in claims 38 and 47 (see col. 1, lines 46-48). It would have been obvious to one of ordinary skill in the art at the time the invention was made to produce the activated charcoal of Harte et al. from the recited materials, since Brioni et al. teaches that activated charcoal is typically produced in this manner.

Claims 39, 40, 48 and 49 are again rejected under 35 U.S.C. 103(a) as being unpatentable over Harte et al. in view of Lundquist (U.S. Patent No. 6,436,294). Harte et al. discloses the claimed invention with the exception of the recited carboxylic acid. Lundquist teaches that both EDTA and lactic acid are useful chelating agents for heavy metal ions (see col. 3, lines 21, 24-25 and 27). It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the lactic acid of Lundquist for the EDTA of Harte et al., since this secondary reference chelating agent is capable of sequestering heavy metal ions from water in substantially the same manner as the chelating agent of the primary reference (see col. 3, lines 1-2), to produce substantially the same results.

Applicant's arguments filed November 12, 2004 have been noted and carefully considered, but are not deemed to be persuasive of patentability. Applicant argues that Harte et al. only considers the use of chelating agents for removing heavy metals from contaminated water, and does not teach controlling the pH of this water. It is pointed out, however, that Applicant has demonstrated that the material of this primary reference is capable of controlling pH to less than 1 pH unit for at least 1.25 bed volumes of water treated with bituminous coal based activated carbon, and for at least 3.75 bed volumes of water treated with coconut shell based activated carbon, and this is all that is required by the claims in this application.

The Roodman declaration filed November 12, 2004 has also been noted and carefully considered; and while this declaration does appear to demonstrate new and unexpected results for citric acid, it is not deemed to be persuasive of patentability for claims 36-53 because none of these claims is limited to the use of citric acid.

Applicant is advised that claims 36 and 45, as well as proper claims dependent therefrom, would be allowed if limited to citric acid as the recited carboxylic acid.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to I. Cintins whose telephone number is (571) 272-1155. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Duane Smith, can be reached at (571) 272-1166.

The centralized facsimile number for the USPTO is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ivars Cintins

Ivars C. Cintins
Primary Examiner
Art Unit 1724

I. Cintins
February 4, 2005